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10/529,961	11/03/2005	Andrew Gordon Williams	901096542 (02-0073)	7456
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EXAMINER BATISTA, MARCOS				
ART UNIT 2617		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/529,961

**Applicant(s)**

WILLIAMS, ANDREW GORDON

**Examiner**

MARCOS BATISTA

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Action is in response to Applicant's amendment filed on 08/23/2010. Claims 1-42 are still pending in the present application. This Action is made **Non-FINAL**.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 19 and 40 recite the limitation of "without requiring the explicit cooperation of application software." This limitation can be found at the end of claims 1, 19 and 40. By the content of the claim language, it is not clear what exactly the phrase "without requiring the explicit cooperation of application software" is referring to. It would appear as if this limitation is performing an action (e.g., activating a plurality of packet sessions) without the assistance of software. However, the disclosure of the instant application at page 19 lines 5-19 defines the session manager as being implemented in software/hardware that inherently depends on some sort of application software to carry out a particular function.

Claims 2-18, 20-39, 41 and 42 are also rejected by virtue of their dependency on claims 1 and 19.

***Response to Arguments***

3. Applicant's amendment filed on 08/23/2010 have been fully considered but they are not persuasive.

After carefully revising the office action pertinent to the present response and remarks, the following main point(s) have been identified:

1) The Applicant states that Suumaki does not disclose "session manager configured to activate, in response to stateful inspector detecting the requested application-specific packets, a plurality of packet sessions with application-specific QoS parameters, without requiring explicit cooperation of application software. The Applicant also states that the reason why Suumaki does not disclose the above features is because Suumaki clearly discloses, in each and every one of his general and specific examples, that activation of an application connection requires the explicit cooperation of the corresponding connection with the QMOC (See pages 11 and 12 of Applicant's Amendment).

Regarding point 1), Suumaki at column 7 lines 37-43 discloses that the (QoS Management & Optimization Control) QMOC has the task of controlling the activation connection and data flows of each application. The socket application programming interface (SAPI) informs the QMOC of any particular application wishing to establish a connection with another application or service. The SAPI transfers information to the QMOC for certain applications so that the QMOC can take the full control of activating the corresponding PDP. This does not necessarily mean that the QMOC needs the

cooperation of the SAPI in order to carry out the activation task. The QMOC is fully in charge in controlling the activation of the application without explicit assistance from the SAPI. A closer look to Suumaki at col. 11 line 51 – col. 12 line 2 suggests that the QMOC can activate a particular PDP for a particular application even when information is not transmitted from the SAPI to the QMOC (i.e., without interaction with the SAPI). This is because the QMOC can consult the internal database for the required information. It can also be seen at col. 11 line 51 – col. 12 line 2, that the activation of the PDP is in response to detecting a traffic class (i.e., application-specific packet).

Suumaki, column 7 lines 37-43:

3) FIG. 3a also shows the control block QMOC (QoS Management & Optimization Control). The tasks of this control block QMOC include controlling the activation of application connections and data flows of each application and the allocation of the resources required. In addition, the control block QMOC performs the changes required by the altered needs of the quality of service.

Suumaki, col. 11 line 51 – col. 12 line 2:

“When the E-mail application (application H) is started, the **socket application programming interface does not transmit quality of service information**, but for this application,

quality of service information has been saved in the internal database. **From this information, the control block QMOC detects that the fourth traffic class has been specified for this application.** The PDP context corresponding to the fourth traffic class is the ninth PDP context PDP9, and thus the control block QMOC selects this PDP context for use by this application H. In addition, the control block QMOC specifies a data transfer filter for the application. This data transfer filter is, for instance, a database in which information such as the identifier used in the data flow packets, the PDP context, quality of service parameters or other information is saved. **After this, the control block QMOC activates the selected PDP context PDP9 and sends the data from the data transfer filter to the packet classifier block PAC of the mobile terminal MT and the packet-switched network, preferably to the gateway GPRS support node 3G-GGSN, which is the second end of the data transfer connection"**

Therefore, the argued features are written such that they read upon the cited reference(s).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-10, 13-16, 18-28, 31-34 and 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suumaki et al. (US 6847610 B1), hereafter "Suumaki," in view of Jungck et al. (US 20060029104 A1), hereafter "Jungck."

Consider claim 1, Suumaki as modified by Jungck discloses an apparatus for session control in a wireless communication network, comprising: a stateful inspector configured to detect requested application-specific packets in a packet stream (**see fig. 5, col. 8 lines 42-48, col. 11 lines 55-60**); and a session manager configured to activate, in response to the stateful inspector detecting requested application-specific packets, a plurality of packet sessions with application-specific QoS parameters, without requiring explicit cooperation of application software (**see col. 7 lines 38-41, col. 11**

**lines 65-67, col. 12 lines 1-2, and 46-49 - the QMOC does the QoS parameters detection independently of any type of application).**

Suumaki, however, does not particular refer to a stateful inspector configured to block application-specific packets in the packet stream that are not the requested application-specific packets. Jungck, in the same field of endeavor, teaches a stateful inspector configured to block application-specific packets in the packet stream that are not the requested application-specific packets (**see pars. 0175 lines 1-15, 0176 lines 6-16**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Suumaki and have it include a stateful inspector configured to block application-specific packets in the packet stream that are not the requested application-specific packets, as taught by Jungck. The motivation would have been in order to *enhance Internet infrastructure to more efficiently deliver content from providers to users and provide additional network throughput, reliability, security and fault tolerance* (**see par. 0006 lines 1-4**).

Consider claim 2, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the session manager is further configured to deactivated at leas one of the plurality of packets sessions (see col. 14 lines 56-58).

Consider claim 3, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the wireless communication network comprises a UMTS radio access network (see col. 3 lines 31-35).



Consider claim 4, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the plurality of packet sessions comprises Packet Data Protocol (PDP) contexts (see col. 3 lines 41-46).

Consider claim 5, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches further comprising a packet filter responsive to the stateful inspector (see col. 8 lines 42-48 – packet are routed based in part to their respective connection).

Consider claim 6, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the stateful inspector is configured to inspect uplink packet flows to detect application-specific packet flows, via application-specific control messages (see col. 8 lines 55-61).

Consider claim 7, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the stateful inspector is configured to inspect downlink packet flows to detect application-specific packet flows, via application-specific control messages (see col. 10 lines 26-35).

Consider claim 8, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the plurality of packet sessions comprises conversational class PDP contexts (see tab. 1, col. 5 lines 5-7).

Consider claim 9, Suumaki as modified by Jungck discloses the invention of claim 8 above, Suumaki also teaches wherein the conversational class PDP contexts are arranged to carry Voice over IP (VoIP) traffic (see col. 3 lines 41-46, col. 12 lines 43-46).

Consider claim 10, Suumaki as modified by Jungck discloses the invention of claim 8 above, Suumaki also teaches wherein the conversational class PDP contexts are arranged to carry Video over IP traffic (see col. 3 lines 41-46, col. 12 lines 43-46).

Consider claim 13, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the plurality of packet sessions comprises streaming class PDP contexts (see col. 7 lines 13-19).

Consider claim 14, Suumaki as modified by Jungck discloses the invention of claim 13 above, Suumaki also teaches wherein the streaming class PDP contexts are arranged to carry streaming media traffic controlled by Real Time Streaming Protocol (see col. 7 lines 13-19).

Consider claim 15, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the plurality of packet sessions comprises interactive class PDP contexts (see tab. 1, col. 4 lines 65-67, col. 5 line 1).

Consider claim 16, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches wherein the plurality of packet sessions comprise background class PDP contexts (see tab. 1, col. 4 lines 65-67, col. 5 line 1).

Consider claim 18, Suumaki as modified by Jungck discloses the invention of claim 16 above, Suumaki also teaches wherein the background class PDP contexts are arranged to carry Simple Mail Transfer Protocol (SMTP) traffic (see fig. 3a, col. 7 lines 13-19).

Consider claims 19-28, 31-34 and 36, these are method claims corresponding to system claims 1-10, 13-15, and 18. Therefore, they have been analyzed and rejected based upon the system claims 1-10, 13-16, and 18 respectively.

Consider claim 37, Suumaki as modified by Jungck discloses the invention of claim 19 above, Suumaki also teaches wherein the method is performed in User equipment (UE) (see fig. col. 8 lines 55-64).

Consider claim 38, Suumaki as modified by Jungck discloses the invention of claim 1 above, Suumaki also teaches User equipment (UE) for use in a UTRA system, the user equipment comprising the apparatus of claims 1 (see fig. 4a, col. 1 lines 65-67, col. 2 lines 1-6).

Consider claim 39, Suumaki as modified by Jungck discloses the invention of claim 19 above, Suumaki also teaches an integrated circuit comprising the apparatus of claim 1 (see col. 7 lines 51-54).

Consider claim 40, this claim discusses the same subject matter as claim 19. Therefore, it has been analyzed and rejected based upon the rejection to claim 19.

7. Claims 11 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suumaki et al. (US 6847610 B1), hereafter "Suumaki," in view of Jungck et al. (US 20060029104 A1), hereafter "Jungck," further in view of Dorenbosch et al. (US 20030235184 A1), hereafter "Dorenbosch."

Consider claim 11, Suumaki as modified by Jungck discloses claims 1 and 9 above, but does not particular refer to wherein the traffic is based on originated calls controlled by Session Initiation Protocol (SIP).

Dorenbosch, in analogous art, teaches wherein the traffic is based on originated calls controlled by Session Initiation Protocol (SIP) (see par. 0055 lines 7-11).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Suumaki as modified by Jungck and have it include wherein the traffic is based on originated calls controlled by Session Initiation Protocol (SIP), as taught by Dorenbosch. The motivation would have been in order to provide a mean for connection setup and session control (see par. 0055 lines 7-11).

Consider claim 29, this is method claim corresponding to system claims 11. Therefore, it has been analyzed and rejected based upon the system claim 11 above.

8. Claims 12, 17, 30 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suumaki et al. (US 6847610 B1), hereafter "Suumaki," in view of Jungck et al. (US 20060029104 A1), hereafter "Jungck," further in view of Fenton et al. (US 20030193967 A1), hereafter "Fenton."

Consider claim 12, Suumaki as modified by Jungck discloses claims 1 and 9 above, but does not particular refer to wherein the traffic is based on originated calls controlled by H.323 protocol.

Fenton, in analogous art, teaches wherein the traffic is based on originated calls controlled by H.323 protocol (see par. 0049 lines 11-14).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Suumaki as modified by Jungck and have it include wherein the traffic is based on originated calls controlled by H.323 protocol, as taught by Fenton. The motivation would have been in order to provide access to information via an open standard protocol (see par. 0049 lines 11-14).

Consider claim 17, Suumaki discloses as modified by Jungck claims 1 and 16 above, but does not particular refer to wherein the background class PDP contexts are arranged to carry Post Office Protocol - Version 3 (POP3) traffic.

Fenton, in analogous art, teaches to wherein the background class PDP contexts are arranged to carry Post Office Protocol - Version 3 (POP3) traffic (see par. 0049 lines 11-14).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Suumaki as modified by Jungck and have it include wherein the background class PDP contexts are arranged to carry Post Office Protocol - Version 3 (POP3) traffic, as taught by Fenton. The motivation would have been in order to provide access to information via an open standard protocol (see par. 0049 lines 11-14).

Consider claims 30 and 35, these are method claims corresponding to system claims 12 and 17. Therefore, they have been analyzed and rejected based upon the system claims 12 and 17 respectively.

9. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suumaki et al. (US 6847610 B1), hereafter "Suumaki," in view of Jungck et al. (US 20060029104 A1), hereafter "Jungck," further in view of Boyle et al. (US 20050235349 A1), hereafter "Boyle."

Consider claims 41 and 42, Suumaki as modified by Jungck discloses claims 5 and 23 above, but does not particular refer to wherein the stateful inspector is configured to inspect packets, implying a state of an application-specific packet session

via inspected control packets and allowing packets for said session to flow through the firewall if said session originated from inside the firewall or otherwise, blocking said session.

Boyle, in the same field of endeavor, teaches wherein the stateful inspector is configured to inspect packets, implying a state of an application-specific packet session via inspected control packets and allowing packets for said session to flow through the firewall if said session originated from inside the firewall or otherwise, blocking said session (see pars. 0009 lines 1-6, 0052 lines 1-3, 0059 lines 1-5).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Suumaki as modified by Jungck and have it include wherein the stateful inspector is configured to inspect packets, implying a state of an application-specific packet session via inspected control packets and allowing packets for said session to flow through the firewall if said session originated from inside the firewall or otherwise, blocking said session, as taught by Boyle. The motivation would have been in order to prevent unsolicited network traffic from entering a private network (see par. 0009 lines 1-6).

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marcos Batista, whose telephone number is (571) 270-5209. The Examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached at (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/Marcos Batista/  
Examiner  
10/28/2010

**/LESTER KINCAID/**

**Supervisory Patent Examiner, Art Unit 2617**